

COUNTY BOROUGH OF ST. HELENS.



Annual Report  
OF THE  
School Medical Officer  
FOR  
1942

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FRANK HAUXWELL, M.B., Ch.B., D.P.H.,  
Medical Officer of Health  
and School Medical Officer.

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St. Helens:

WOOD, WESTWORTH & CO., LIMITED, PRINTERS AND STATIONERS,  
HARDSHAW STREET.

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TO THE CHAIRMAN AND MEMBERS OF THE  
ST. HELENS EDUCATION COMMITTEE

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Ladies and Gentlemen,

I submit herewith my Annual Report as School Medical Officer for the year 1942.

The general picture as presented by the findings of school medical inspections during 1942 gave rise to no uneasiness, but rather to quiet satisfaction that despite war-time conditions the well being of the children remained good.

It is true there was a very slight increase in the total number of children found to be suffering from malnutrition, but this was so slight that it cannot be considered as reflecting any serious deterioration in the nutritional standard of the child population. The extension of school feeding and the increased participation in the milk in schools scheme are safe counter measures to any danger of malnutrition.

With the exception of measles, which assumed epidemic proportions but was not severe in type, the incidence of infectious diseases was again low. There was, however, a decrease in the number of children immunised against Diphtheria during 1942 as compared with the previous year, and though the percentage of immunised children age 5-15 years in St. Helens now stands at 52.7, this percentage is much below the safety line.

It is very satisfactory to note the steady decline in the incidence of Tuberculosis during the past 10 years. In 1933 there were on the Tuberculosis Register 228 cases of Tuberculosis in children of school age, whereas in 1942 there were only 99, of whom only 14 were pulmonary cases.

The range of inspection and treatment services remained unrestricted in scope throughout the year. Difficulties, however, are still being encountered by the nursing staff in their visits to the homes in connection with treatment recommended. The absence from home of mothers engaged on work of national importance is a necessary accompaniment of the war effort and as such must be accepted. Its effects, however, are seen not only in delay in receiving very necessary treatment, but also in a slight rise in the incidence of head infestation. I would also dare to suggest that the present lack of control outside school hours will raise serious problems later.

For much of the work done I am indebted to Dr. O'Brien, Deputy School Medical Officer, and to him and to other members of the staff, and to teacher and officials of the Education Department, I would take this opportunity of expressing my appreciation of their ever willing and helpful assistance.

I am,

Ladies and Gentlemen,

Your obedient Servant,

FRANK HAUXWELL.

August, 1943.

STATISTICAL REVIEW OF WORK OF THE SCHOOL MEDICAL SERVICE  
DURING THE YEARS 1941 AND 1942.

		1941	1942
Children in Average Attendance at Elementary School	....	14,615	15,164
Total Examinations of Elementary School Children	....	21,154	21,608
Total Examinations of Secondary School Children	....	1,186	1,525
Miscellaneous Examinations (Bursars, etc.)	....	205	161
Minor Ailments treated	....	3,145	3,555
Visual Defects treated	....	489	510
Ear, Throat and Nose Defects treated	....	606	665
Children inspected by School Dentists	....	17,506	17,492
Children treated by School Dentists	....	5,064	3,895
Total Attendances at all School Clinics	....	48,359	50,720
Examinations by Nurses for Cleanliness	....	54,170	59,053
Visits to Schools by Medical Officers	....	466	486
Visits to Schools by Nurses	....	4,469	4,541
Home Visits by Nurses	....	6,169	5,594
Total Attendances at Inspection Clinic	....	3,966	3,010

**MEDICAL INSPECTION.**

**Elementary Schools.**

During the year 1942 there were under the control of the Education Committee 40 Elementary Schools with 79 departments. Particulars as to accommodation and attendances are as follows :—

Number of children for whom accommodation available	....	....	25,116
Average number of children on the roll during the year	....	....	17,284
Average number of children in attendance during the year	....	....	15,164
Percentage attendance for the year	....	....	87.7%

During 1942 there was no reduction in the scheme of medical inspection in the schools of the town. A complete nutritional survey of all school children was also carried out and a report on this is given in a later section.

Attendances at the Inspection Clinics, however, showed a reduction. This was undoubtedly due to the fact that in many cases the calls of industrial employment rendered it impossible for parents to bring the younger children to these clinics during day-time hours. This factor has operated during the last two years and there does not appear to be any solution to the problem.

The following statement shows the number of inspections carried out by Medical Officers during the past five years :

	1938	1939	1940	1941	1942
Routine examinations	....	5989	3222	5122	5874
Special examinations	....	5856	5586	5175	5500
Re-examinations	....	10724	6389	7484	9780
Attendances at Inspection Clinic	....	4070	3901	3220	3966
					3010

The detailed figures of the number medically inspected during the year are given in Table I.

## Secondary Schools.

The only Secondary Schools in St. Helens to which the provisions of the School Medical Service are applicable are the Cowley Boys' Secondary School and the Cowley Middle School for Girls.

The following statement shows the work done in the medical inspection of these schools during the past 5 years :

	1938	1939	1940	1941	1942
Routine examinations	996	1049	892	746	1115
Special examinations	163	160	150	184	139
Re-examinations	274	365	259	256	271

The detailed figures of the number of children inspected are given in Table VIII.

## FINDINGS OF MEDICAL INSPECTION.

### Elementary Schools.

Of 6,592 children examined at the routine medical inspections during 1942, 454 (6.9%) were found to be suffering from defects (other than uncleanliness, defective clothing or footgear, and dental defects), which required treatment, and 1,380 (20.9%) from defects requiring to be kept under observation.

The corresponding percentages for 1941 were 9.2% and 25.8% respectively. The main decrease in cases referred for treatment during 1942 occurred in cases of bronchitis and allied catarrhal infections of the mucous membranes. Cases of enlarged tonsils also showed a decreased incidence.

During the year the nutritional survey of all children in elementary schools in the town was carried out. That survey, which embraced 16,526 children, showed that 953 children (5.7%) could be classed as suffering from some degree of malnutrition. This is a slightly higher percentage than the corresponding figure for 1941, which was 4.71%. Once again the greatest incidence was found generally to occur in the 7—11 year age group. Detailed figures regarding the nutritional condition of children inspected in routine age groups are given in Table II, and as a contrast the figures for the year 1941 are also shown.

Variations in individual schools, as shown by a similar yearly contrast, gave inconclusive results and no uniform increase or decrease in incidence for any school, or group of schools, in individual area of the Borough was found.

Whilst the slight increase in the percentage of children found during 1942 to be malnourished need not give cause for undue anxiety, it was noted that for the first time during these surveys a few cases were found which appeared to show signs of obvious vitamin lack. Such children commonly displayed a condition of demonstrable anaemia of the mucous membranes, together with pale, puffy features and a marked pulpy gingivitis, the latter not in any way attributable to dental disease. Although it is not claimed that any of these few cases constituted a clinical "Pre-scorbutic" picture, it is not unreasonable to assume that they were directly attributable to an ill-adjusted diet, especially as the administration of Vitamin C (Ascorbic Acid) to three of the cases proved quite effective in remedial treatment.

The importance of a carefully balanced diet, where the range of vitamin containing foodstuffs may be seasonably restricted, is one of paramount necessity to growing children, and during the war years can only be assured for a considerable number of the school population by the extension of communal feeding.

The position in St. Helens in relation to the provision of meals and milk is outlined in a later section of the report.

In my Annual Report for last year a review was given on the investigation of infestation in the schools and a scheme of intensified supervision in schools was outlined. The main provisions of that scheme were put into operation during 1942. This entailed an increase of approximately 5,000 extra examinations of children for cleanliness by nurses in the schools.

The percentage of children found to be actually verminous or showing evidence of infestation was 5.25, the corresponding figure for 1941 being 4.65. There was therefore a tendency during 1942 towards an increase in number of children infested by vermin. Unfortunately, parental co-operation was sadly lacking in many cases, but very frequently this was due to the absence of mothers from the home whilst engaged on "shift" work in industrial undertakings. Following the passing of the Scabies Order, 1941, exemplary action was deemed necessary on several occasions and under its provisions cleansing was carried out in 7 cases.

The percentage of children found at routine inspections with defective clothing was 1.37 in 1942 as compared with 2.50 in 1941; whilst the percentage with defective footwear was 0.61 compared with 1.55 in the preceding year.

The number of cases of scabies discovered at Inspection Clinics and during medical inspection in schools again showed an increase on previous years.

	1938	1939	1940	1941	1942
No. of cases of scabies .....	37	59	147	515	544

Many of these cases were disclosed during special inspections and did not result from routine medical inspection of the three age groups. The value and necessity of these special examinations during these abnormal times could not be more practically demonstrated. The number of cases discovered to be suffering from Scabies of the abdominal wall or chest wall or buttocks, without showing demonstrable lesions on the uncovered hands or legs, was very large. These "hidden" cases constitute a reservoir of infection which may nullify all efforts at control of the spread of the infestation amongst the population, if their existence is not disclosed and steps taken to clear them up.

Facilities for treatment were afforded at the Cleansing Centre at Peasley Cross Isolation Hospital and the majority of cases received treatment at that Centre. All school cases were followed up and kept under the closest supervision until treatment was completed. Application of the provisions of the Scabies Order was found necessary in 2 cases and 4 children were compulsorily treated.

*Re-examinations* : The following table gives the number of re-examinations carried out by Medical Officers during the year, and the results found at these re-examinations.

Number of children re-examined .....	.....	.....	.....	.....	5,915
Total re-examinations .....	.....	.....	.....	.....	9,240
Number found remedied .....	.....	.....	.....	.....	1,500 (16.23%)
Number found improved .....	.....	.....	.....	.....	5,940 (64.29%)
Number found stationary .....	.....	.....	.....	.....	1,716 (18.57%)
Number found retrograde .....	.....	.....	.....	.....	84 (0.91%)

## Secondary Schools.

At the Secondary Schools, 1,115 children were examined at the routine inspections. Of these 50 (4.5%) had defects (other than uncleanliness, defective clothing or footwear, or dental defects), requiring treatment, and 250 (22.4%) defects which required to be kept under observation. The corresponding percentages for 1941 were 6.3% and 23.59%.

In addition to the routine inspections, 139 special cases were examined and 271 children previously found defective were re-examined.

## MEDICAL TREATMENT.

### Elementary Schools.

There was no curtailment of the range of treatment services during the year 1942, and despite changes in personnel, the Medical and Nursing staffs remained at pre-war strength.

Table IV gives in detail and Table VII in summary the treatment obtained for the various defects referred for treatment during 1942.

Of the 5,887 children referred for treatment for medical defects discovered during routine and special inspections during the year, 5,478 (93.05%) were treated before the end of the year, and of 8,079 children referred for dental treatment 3,881 (48.04%) were treated. The corresponding figures for 1941 were 94.19% and 40.01%.

### Secondary Schools.

The detailed figures regarding the defects treated are given in Table XI, and a summary of the treatment obtained is shown in Table XIV.

Of the 87 children referred for treatment for medical defects during the year, 68 (78.16%) were treated before the end of the year, and of 524 children referred for dental treatment 458 (87.40%) were treated. The corresponding figures for 1941 were 85.42% and 78.43%.

### Provision of Treatment.

The total number of defects treated at the various clinics during the past five years is shown in the following statement.

	1938	1939	1940	1941	1942
Minor Ailments .....	3,282	2,919	2,550	3,145	3,555
Visual Defects .....	558	578	509	489	510
Defects of Throat and Nose .....	304	183	511	400	423
Dental Defects .....	6,436	6,147	4,975	5,064	3,895
Crippling Defects .....	601	504	430	462	412
Speech Defects .....	—	—	—	79	73
Other Defects .....	714	1,082	1,245	810	690
Total number of defects treated .....	11,895	11,413	10,220	10,449	9,558
Total attendances .....	61,066	53,439	43,626	49,362	50,720

Facilities at treatment clinics were well utilised during the year, and there was an increase in the number of treatments for minor ailments, visual and throat and nose defects, compared with the previous year.

At district minor ailments clinics 1,657 children made 21,173 attendances during 1942, and at the district dental clinics 867 children made 1,158 attendances.

The following table shows the work carried out at or in connection with the Ophthalmic Clinic during the past five years.

	1938	1939	1940	1941	1942
Cases for refraction .....	558	578	509	489	510
Cases glassed .....	472	405	205	417	407
Cases not glassed .....	86	173	304	72	103
Old cases reviewed .....	723	602	499	701	676
Cases referred for observation .....	6	1	8	—	—
External eye diseases .....	17	3	13	13	13
Operations .....	11	10	5	11	15
Total attendances .....	1,304	1,190	1,249	1,156	1,101

The operations, referred to above, were straightening operations performed for squint by the Consultant Ophthalmic Surgeon in one of the local hospitals.

A development in the treatment of squints, which it had been hoped to adopt before now in St. Helens, is Orthoptic treatment. This consists of special training of the eye muscles, but requires specially trained nurses or attendants for its success. Unfortunately, under present conditions, it is almost impossible to get such personnel, but it is hoped to institute this form of treatment as soon as properly trained personnel become available.

During 1942 the work done at the Aural and Nose and Throat Clinic maintained a highly successful level and weekly sessions were conducted by the acting Consultant Surgeon. Intercurrent treatments were carried out daily by the nurse.

In all, 567 cases made 2,754 attendances for examination and treatment during the year.

I am obliged to Mr. W. E. Hunter, Consultant Surgeon, for the following report on the work carried out during the year.

"The work at the clinic continues to increase and the figures for attendance again show an increase over those of the previous year.

"There has been some improvement in the attendances of those children requiring daily attention, but a number attend so infrequently that treatment is of little use. It is better for a child to miss a few hours at school each week to have the defect cured, rather than a resultant condition due to lack of regular treatment.

"There has been less chronic rhinitis, due either to a better balanced diet or improved nasal hygiene.

"The number of children requiring treatment after removal of the tonsils and adenoids would seem to require an explanation. This is due to the fact that no child is discharged until all symptoms such as mouth breathing, nasal discharge and enlarged glands have subsided and further necessary treatment given.

"I would suggest that all cases of enlarged tonsils of twelve months duration and all cases of real or suspected deafness be referred to the clinic for examination.

"The clinic is well equipped to diagnose and treat all diseases of the upper air passages, and it is to be regretted that full advantage of its facilities is not always taken by the public."

The following operative treatments were carried out during the year at one of the local hospitals by the Consultant Surgeon.

Removal of Tonsils and/or Adenoids	.....	.....	291
Antral lavage	.....	.....	12
Cautery of septum	.....	.....	4
Removal of polypi	.....	.....	3
			310

Therapeutic work in the Speech Defect Clinics was again carried out during the year by Miss M. W. Ferrie, Speech Therapist, and I am indebted to her for the following report on the work accomplished.

"This year, progress in all disorders of speech seems to have been a little slower than in previous years. Insufficient sleep, unbalanced diet and general lack of supervision are three of the most obvious causes, due in some, but not all cases, to the fact that the mothers are on war work. Improvement in speech disorders is closely bound up with a child's physical, mental and psychological well-being, and anything detrimental to these three factors will be a barrier to progress.

"Two children known to be considerably mentally retarded and whose speech had not developed beyond a few monosyllables, have been admitted this year. One is showing slow but definite improvement not only in speech development but in her general attitude, interest and co-operation at school. It has been thought worth while to give them both a further trial period. It is generally found that these cases respond favourably to Speech Therapy and that improved speech brings a general improvement, but it is always a very slow process and therefore, it is not practicable to load one's case list with them to the exclusion of the child of normal intelligence.

"War conditions still make it necessary for the Speech Clinic to be held in 3 areas of the town instead of, as formerly, in one centre. A disadvantage of this arrangement is that children can be seen only once a week instead of twice a week as previously and that fewer children can be dealt with."

A summary of the cases dealt with during 1942 is given below.

	Stammer	Cleft Palate	Dyslalia	Dysphonia	Dysarthria	Delayed Speech	Total
Discharged—							
Speech satisfactory .....	3	1	5	1	—	—	10
Improved—further progress unlikely .....	2	—	—	—	—	—	2
Left School—							
Much improved .....	2	—	—	—	—	—	2
Improved .....	2	—	—	—	—	—	2
I.S.Q. .....	1	—	—	—	—	—	1
Under supervision only—							
Improved .....	3	—	1	—	—	—	4
Treatment not necessary .....	—	—	1	—	—	—	1
Treatment not carried out—							
Did not attend .....	—	—	1	—	—	—	4
	13	1	11	1	—	—	26
Still Attending—Improving .....	14	3	8	—	2	2	29
I.S.Q. .....	2	—	1	—	—	—	3
Under supervision .....	2	2	11	—	—	—	15
	18	5	20	—	2	2	47

Part of the cost of treatment provided at these various Clinics is recovered from the parents in accordance with the family circumstances. During the year ended 31st December, 1942, parents paid £270/5/3.

The question of special provision for the specially defective child is dealt with under the headings dealing with exceptional children.

### DENTAL INSPECTION AND TREATMENT.

I am indebted to Mr. V. Higham, Senior Dental Surgeon, for the following notes on the work of the School Dental Department.

“ During the year 16,228 elementary school children were inspected and 8,019 (49.4%) were referred for treatment. 3,684 (46%) received treatment during the year, and of these, 3,070 completed their treatment. One orthodontic appliance was supplied.

“ It will be noted that 831 sessions were devoted to treatment as compared with 1,127 in 1941. This decrease in treatment sessions is due to the resignation during the year of one of the full-time dentists and by her replacement by a part time dentist.

“ Treatment was given at the Open Air School twice during the year. At the first inspection 110 children were examined and 33 required treatment. 31 were treated. At the second inspection 114 were inspected and 23 had defective teeth. 16 were treated. 4 have recently consented and will be treated in the immediate future.

“ Cowley Schools were examined twice during the year. 211 cases were referred for treatment and 155 completed treatment. One regulation appliance was supplied.”

### FOLLOWING-UP AND WORK OF SCHOOL NURSES.

The following figures show the work carried out by the School Nurses during the year.

1. Number of visits to schools for general supervisory purposes and for medical and verminous inspections .....	4,541
2. Number of examinations of children for cleanliness .....	59,053
3. Number of visits paid to the homes of children in following up defects, investigating cases of infectious disease, investigating cases referred by the School Attendance Department, etc. ....	5,594

In addition to the work of the nurses referred to above, special nurses are employed, at the School Clinic and District Clinics, who are wholly engaged treating or assisting in the treatment of various defects.

### INFECTIOUS DISEASE.

The number of cases of the principal infectious disease occurring amongst school children is shown in the following table, which also gives the corresponding figures since 1938.

	1938	1939	1940	1941	1942
Scarlet Fever .....	396	639	123	103	89
Diphtheria .....	311	324	176	143	158
Measles .....	808	125	1460	216	1699
German Measles .....	26	122	834	12	22
Whooping Cough .....	188	141	163	313	166
Chicken Pox .....	246	320	103	310	617
Mumps .....	377	17	11	792	26

With the exception of Measles, there was a low incidence of infectious disease amongst school children during 1942. From May onwards the number of cases of Measles increased and the figures for that disease had reached epidemic proportions by the end of the year. The disease was not severe in type but caused a high degree of absenteeism in the schools.

The incidence of Scarlet Fever showed a new low record and continued the decline which has been apparent over a period of years. Cases of Diphtheria were sporadic in type, showed no tendency to epidemic incidence and the recorded total for the whole year showed only a very small increase on the figure for 1941, which had been the smallest for many recorded years.

In my Report for 1941 comment was made on the work of the intensive Immunisation Campaign which was carried out in the schools in that year. During 1942, this campaign was continued but there was a considerable reduction in the numbers of children immunised as compared with the previous year. Only 652 children from 5—15 years of age were immunised during the year, and this small number is due to the fact that we are now dealing with the class of parent who has refused in the first place to have children immunised and to whom a great amount of propaganda work in the form of visits and talks must be devoted. It may be stated, however, that the percentage of immunised children aged 5—15 years in the Borough now stands at 52.7.

During the year the recommendation of the Ministry of Health, that school entrants should be given a single refresher dose of immunising agent, was carried out, and under this scheme 39 children received refresher immunisation inoculation on entering school.

During the year the percentage attendance fell below 60% in nine departments owing to epidemic sickness, when attendances were affected for a period of thirteen weeks due to measles, chicken pox and whooping cough.

### TUBERCULOSIS.

At the end of 1942 there were in St. Helens 99 children of school age suffering from tuberculosis in the following forms :—

Pulmonary .....	.....	.....	.....	14
Non-pulmonary—				
Bones and joints .....	.....	.....	.....	19
Peripheral glands .....	.....	.....	.....	47
Abdominal .....	.....	.....	.....	17
Skin and others .....	.....	.....	.....	2
				—
				99
				—

Most of these cases were quiescent and only 13 non-pulmonary cases and 3 pulmonary cases were found to require active treatment.

The steady decline in the incidence of Tuberculosis in children of school age is very encouraging. In 1933, there were on the Tuberculosis Register 228 cases, of which 92 were suffering from the pulmonary form of the disease, whereas in 1942 there were only 99, of which only 14 were pulmonary cases. Among the factors which have contributed to this decline, a high place must, I think, be given to the value of school meals and milk schemes in building up resistance to this disease. The Open Air School has also done very valuable work.

Out-patient treatment for children suffering from tuberculous disease of bones or joints is provided at the Council's Orthopaedic Clinic, where 18 children

made 50 attendances to see the Orthopaedic Surgeon, and 63 attendances for supervision and treatment by the Orthopaedic Nurse. The latter also paid 202 supervisory home visits during the year. In addition 19 children suffering from lupus or tuberculous adenitis made 175 attendances at the Tuberculosis Dispensary for Artificial Sunlight. Two children with lupus of the face attended the Belmont Road Hospital, Liverpool, by arrangement with the Liverpool Public Health Department, for intensive ultra violet light treatment.

During 1942, 10 children spent an aggregate of 2,023 days in Eccleston Hall Sanatorium. These children received tuition at the special school attached to the Sanatorium, the average daily attendance being 7 and the average number of days each child attended 155. In addition, 4 children spent an aggregate of 1,328 days in the Leasowe Open Air Hospital for Children.

During 1942, research work on the adaptation of miniature screen photography for the examination of school children was carried out by the Tuberculosis Officer, and in the early months of the current year a special report was submitted by me on the possibilities of its application to children of the school leaving age. Following that report (which is printed in the Appendix), the Education Committee decided to apply to the Board of Education for approval of a scheme for the miniature radiography of all school children of the 12-13 year old age group.

## EXCEPTIONAL CHILDREN.

### Crippled Children.

At the end of 1942 there were in St. Helens 23 children of school age in whom the crippling was sufficiently severe to interfere with a normal mode of life.

The following Table shows the number of severely crippled children in St. Helens at the end of each year since 1938 and the causes of the crippling.

	1938	1939	1940	1941	1942
Tuberculosis .....	11	3	4	5	3
Infantile Paralysis .....	15	17	13	8	7
Other forms of Paralysis .....	10	6	6	6	7
Congenital Deformities .....	11	8	7	4	3
Rickets .....	2	2	2	2	2
Arthritis .....	—	—	—	—	—
Miscellaneous .....	5	6	4	2	1
	54	42	36	27	23

Of the 23 children known at the end of 1942, 13 were attending Public Elementary Schools, 1 was at a Special School, 5 were in Institutions and 4 were at no school or institution.

There are, however, many other children with lesser degrees of crippling, so that excluding tuberculous cases which are dealt with under Tuberculosis, the number on the register of the Orthopaedic Clinic was much higher, there being

412 cases suffering from the following defects on that register during the year :

Infantile paralysis	.....	.....	37
Other forms of paralysis	.....	.....	25
Congenital deformities	.....	.....	41
Rickets	.....	.....	37
Traumatism	.....	.....	5
Acquired foot deformities	.....	.....	116
Postural defects	.....	.....	105
Other acquired deformities	.....	.....	20
Arthritis	.....	.....	1
Miscellaneous	.....	.....	25
			—
			412

The treatment provided for these children involved 571 attendances for consultation or treatment by the Orthopaedic Surgeon, 5,081 attendances for intermediate treatment by the nurse and 66 home visits by the nurse for purposes of supervision. In addition, 14 cases received surgical or other hospital treatment for an aggregate of 1,682 days.

In addition to the crippled children there are in St. Helens 16 children with heart disease of such severity that they are physically crippled. 7 of these attend Public Elementary Schools, 1 is at a secondary school, and of the remainder, 6 are at Certified Special Schools and 2 are at no school.

During the current year arrangements are being completed for the establishment of a Heart Clinic as part of the School Medical Treatment Service in the Borough. All cases of heart disease and rheumatism will be diverted to this clinic for special examination and necessary treatment, and it is hoped by this method to lessen or control the incidence of crippling amongst children due to heart and rheumatic diseases.

### Delicate Children.

The re-opening of the Hamblet Open Air School in 1941 has been fully justified. The value of this School in "saving" the delicate child and in bringing back to health the child temporarily "under the weather" cannot be over-estimated.

The following is a statement of the work done at this School during 1942.

At the beginning of the year there were 120 children on the roll. During the year, 64 new cases were admitted and 66 children were discharged. At the end of the year there were 118 children on the school roll. The condition of the children on discharge was as follows :—

Considered to be fit to return to Elementary Schools	.....	48
Transferred to Secondary School	.....	1
Left to take up employment	.....	5
Discharged at parents' request	.....	2
Discharged for non-attendance	.....	2
Discharged as unsatisfactory	.....	2
Discharged as unfit for school	.....	2
Discharged to Eccleston Hall Sanatorium	.....	1
Left district	.....	3

Excellent progress was again made by the majority of the children in the school. The average gain in weight is shown in the following table :—

	7-9 years	10-12 years	13 years
Girls .....	3.5 ozs.	3.3 ozs.	6.6. ozs.
Boys .....	3.9 ozs.	3.0 ozs.	4.6 ozs.

### Blind, Deaf and Epileptic Children.

The total number of these children is given in Table III. During the year 3 deaf children were sent to a special residential school, and the Local Authority is at present maintaining 1 epileptic, 8 blind, and 10 deaf and dumb children in special schools.

### Mentally Defective Children.

There are at present 21 feeble-minded but educable children of school age in St. Helens, but only 10 of these are at special schools. Of the remainder, 6 attend ordinary classes in the public elementary schools and 5 are at no school or institution.

During the year, 3 ineducable mentally defective boys and 1 imbecile (a boy) were notified to the Local Control Authority.

In connection with provision for the ineducable children in the district, the West Lancashire Association for Mental Welfare runs an Occupation Centre, which is held at Stanley House, Sinclair Street, on five days a week from 9-30 a.m. to 3-30 p.m.

During 1942, 2 children of school age were in attendance at this Centre, where handicraft subjects are taught.

### After Care and Vocational Training.

During 1942, 1 deaf boy returned home on completing his education in a special school. He is now under the supervision of the St. Helens Deaf and Dumb Society. One deaf girl is undergoing vocational training in dressmaking at the Liverpool School for the Deaf.

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### NURSERY CLASSES.

By the end of 1942, all the nursery classes in 21 infants' departments of the elementary schools of the town were re-opened. The temporary expedient resorted to during 1941 of limiting admission to children of 4 years and upwards was relaxed, and where accommodation was available, children of 3 years were admitted. During 1942, there were 1,162 children under 5 years of age in attendance at school.

The provision of these nursery classes has been of the greatest help to the working mothers. As, however, the hours of attendance are limited to school hours, it is hoped in the near future to expand many of them into war-time nurseries so as to cover the full period whilst the mother is working.

## SCHOOL MEALS AND MILK SCHEME.

I am indebted to Mr. Collins, Director of Education, for the following report in the School Meals and Milk Scheme :—

### School Meals.

During 1942, the total number of meals served to school children was 398,521, of which 232,179 were provided free. The total number of individual children receiving meals was 1,738.

In comparison with the previous year these numbers show a decrease of 29 per cent. in free meals and an increase of 47 per cent. in paid meals. The changes are due to better employment in the town and the consequent improvement in home circumstances.

The meals are at present being cooked and served at thirteen School Canteens which are now working almost to capacity. The Education Committee have submitted a scheme for extension of the School Meals Service to the Board of Education, which has been approved. This scheme involves the establishment of five large Kitchens at the following Centres :—Merton Bank Council, Robins Lane Council, a hut at Windle Pilkington Council, the Cambridge Road Domestic Science Centre, and in a hut to be erected on the playing field site at Bishop Road. Each Kitchen will be capable of producing up to 1,000 hot cooked meals per day and will serve those schools in its own district which at present have no dining facilities. The huts have been erected, but the delivery of the necessary equipment has been somewhat slow, and we have not been able to make such speedy progress in the opening of these Centres as was originally contemplated. It is hoped, however, that in the near future the Cambridge Road Centre will be available to serve the schools in the Dentons Green area, and that shortly thereafter the Committee will be in a position to expand in the Merton Bank district and in Sutton (from Robins Lane School).

The food will be transported to individual schools in insulated containers and while there may be some difficulties in the provision of transport, the Committee can look forward to a not inconsiderable increase in the provision of school meals at an early date. One of the essential features in connection with this expansion will, of course, be the completion of suitable arrangements for the supervision of the children. The Committee desire to place on record their appreciation of the manner in which school teachers have in the past assisted in this very essential service, and negotiations are at present proceeding with the teachers for the carrying out of such duties as will result from the contemplated increase in the meals service.

The problem of dining accommodation will occasion difficulty in certain schools, particularly the older buildings which lack the amenity of a suitable school hall, and it may well be that the Committee will find it necessary to operate the School Meals Service in two sittings at the individual schools. Such an arrangement can never be regarded as satisfactory, and it is to be hoped that ultimately every school will have its own dining hall. Until such time as this is possible however, it will be necessary to do the best we can in co-operation with the teachers and Managers in the case of Non-Provided Schools, to ensure that the arrangements work smoothly to the benefit of the children, and with the minimum of inconvenience to the school.

There has always been a considerable reduction in the attendance at School Canteens during the week-ends and during school holidays, which seems to show that parents prefer to have their children at home for meals when they are not attending school. The Canteens all remain open during holidays, but on Saturdays and Sundays it has been found sufficient to keep open only four Canteens, those at Merton Bank, Arthur Street, Lacey Street and Peasley Cross, which conveniently serve these four quarters of the town. Dinner only is served at the Canteens on Sundays.

In the year under review, however, there was a new factor introduced which affected the numbers before, during and after the holiday period. From 17th July until 27th September, the Education Committee arranged a number of School Harvest Camps in co-operation with the Lancashire War Agricultural Committee, and 682 children spent at least two weeks in the country during this period under camp conditions. It is not possible to estimate accurately the effect this had upon the numbers of children taking advantage of the School Meals Scheme, but there was a noticeable drop which was counterbalanced by the fact that the children concerned were being provided with good nourishing meals in camp.

### Scale of Charges.

A new scale of charges was adopted for paid meals and came into operation on 18th May, 1942.

#### *Dinners :*

- 5d. per meal for one or two children from a family.
- 4d. per meal for three or more children from a family.
- 3d. per meal for children under the age of seven.

#### *Breakfasts :*

- 2d. per meal.

The Committee also contemplate the revision in the near future of the income scale for free meals and milk. It may be of more than passing interest to mention that this question is being discussed by the Associated Education Authorities in Lancashire, and their recommendations are likely to be forthcoming at an early date.

### Milk in School.

During 1942, milk was supplied daily to 12,674 individual children, an increase of 15 per cent. on the previous year, which may be regarded as satisfactory. Of these, 11,338 paid a half-penny per one-third pint and 1,336 received the milk free. Every effort continues to be made to increase the number of children, but it must be said that all children cannot be persuaded to have milk, especially during the winter months. Owing to war difficulties the milk is now being delivered to the majority of schools in one-pint bottles and is served to the children in cups and beakers. The Committee make arrangements for the washing up of cups and beakers after use by the children.

Samples of the school milk are regularly taken for examination to ensure a high standard of cleanliness.

# STATISTICAL TABLES.

## FOR THE YEAR 1942

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### ELEMENTARY SCHOOLS—Tables I to VII.

#### TABLE I.

##### RETURN OF MEDICAL INSPECTIONS.

###### A—ROUTINE MEDICAL INSPECTIONS.

Number of Inspections in the prescribed Groups :

Entrants .....	.....	.....	.....	.....	.....	.....	.....	2641
Second Age Group .....	.....	.....	.....	.....	.....	.....	.....	1641
Third Age Group .....	.....	.....	.....	.....	.....	.....	.....	1619
Number of other Routine Inspections (Children under 5 years, other than entrants) .....	.....	.....	.....	.....	.....	.....	.....	691
Total .....	.....	.....	.....	.....	.....	.....	.....	6592

###### B—OTHER INSPECTIONS.

Number of Special Inspections .....	.....	.....	.....	.....	.....	.....	.....	5776
Number of Re-Inspections .....	.....	.....	.....	.....	.....	.....	.....	9243
Total .....	.....	.....	.....	.....	.....	.....	.....	15019

#### TABLE II.

Classification of the Nutrition of Children inspected during the year in the Routine Age Groups.

Age-Groups	Number of Children inspected	A (excellent)		B (Normal)		C (Slightly Sub-Normal)		D (Bad)	
		No.	%	No.	%	No.	%	No.	%
1941									
Entrants .....	2535	106	4.18	2306	90.97	121	4.77	2	0.08
Second Age Group .....	1652	87	5.27	1406	85.11	152	9.20	7	0.42
Third Age Group .....	1671	156	9.33	1432	85.70	82	4.91	1	0.62
Other Routine Inspections .....	16	—	—	13	81.25	3	18.75	—	—
<b>TOTAL .....</b>	<b>5874</b>	<b>349</b>	<b>5.94</b>	<b>5157</b>	<b>87.79</b>	<b>358</b>	<b>6.10</b>	<b>10</b>	<b>0.17</b>
1942									
Entrants .....	2641	282	10.68	2236	84.66	118	4.47	5	0.19
Second Age Group .....	1641	182	11.09	1350	82.27	105	6.40	4	0.24
Third Age Group .....	1619	121	7.47	1398	86.35	100	6.18	—	—
Other Routines .....	691	56	8.10	602	87.12	33	4.78	—	—
<b>TOTAL .....</b>	<b>6592</b>	<b>641</b>	<b>9.72</b>	<b>5586</b>	<b>84.74</b>	<b>356</b>	<b>5.40</b>	<b>9</b>	<b>0.14</b>

### TABLE III.

Return of all Exceptional Children in the Area on the 31st December, 1942.

#### BLIND CHILDREN.

(Children who are so blind that they can only be appropriately taught in a school for blind children).

At Certified Schools for the Blind	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
7	—	—	1	8

#### PARTIALLY SIGHTED CHILDREN.

(Children who, though they cannot read ordinary school books or cannot read them (even with suitable glasses) without injury to their eyesight, have such power of vision that they can appropriately be taught in a school for the partially blind).

At Certified Schools for the Blind	At Certified Schools for the Partially Blind	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	—	4	—	—	4

#### DEAF CHILDREN.

(Children who are too deaf to be taught in a class of hearing children in an elementary school, and are so deaf that they can only be appropriately taught in a school for the deaf).

At Certified Schools for the Deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
10	2	—	—	12

#### PARTIALLY DEAF CHILDREN.

(Children who can be appropriately taught in a school for the partially deaf).

At Certified Schools for the Deaf	At Certified Schools for the partially deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	—	1	—	—	1

#### MENTALLY DEFECTIVE CHILDREN.

(Children (excluding children notified to the Local Authority under the Mental Deficiency Act) who, not being imbecile and not being merely dull or backward, are incapable by reason of mental defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools but are not incapable by reason of that defect of receiving benefit from instruction in Special Schools for mentally defective children).

At Certified Schools for Mentally Defective Children	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
10	6	—	5	21

### EPILEPTIC CHILDREN.

(Children suffering from Severe Epilepsy, who, not being idiots or imbeciles are unfit by reason of severe epilepsy to attend the ordinary Public Elementary Schools).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
1	1	—	1	3

### PHYSICALLY DEFECTIVE CHILDREN.

#### A.—TUBERCULOUS CHILDREN.

(Children diagnosed as tuberculous **and requiring treatment for tuberculosis** at a sanatorium, a dispensary, or elsewhere).

#### I.—Children Suffering from Pulmonary Tuberculosis. (including pleura and intra-thoracic glands)

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	—	1	—	1

#### II.—Children Suffering from Non-Pulmonary Tuberculosis.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
4	4	*4	2	14

\* At Eccleston Hall Sanatorium School.

#### B.—DELICATE CHILDREN.

(Children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
118	84	1	—	203

#### C.—CRIPPLED CHILDREN.

(Children (other than those diagnosed as tuberculous and in need of treatment for that disease) suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
1	13	5	4	23

### D.—CHILDREN WITH HEART DISEASE.

(Children whose defect is so severe as to necessitate the provision of educational facilities other than those of the Public Elementary School).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
6	7	—	2	15

### CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

(Children suffering from any combination of the following types of defect:—Blindness (not Partial Blindness), Deafness (not Partial Deafness), Mental Defect, Epilepsy, Active Tuberculosis, Crippling (as defined in Section C. of this Table), Heart Disease).

Combination of Defect	At Certified Special Schools	At Public Elementary Schools	At Other Institutions	At no School or Institution	Total
Blind and Deaf	1	—	—	—	1
Blind, Crippled and Feeble-minded	—	—	—	3	3
Feeble-minded and Epilepsy....	1	—	—	4	5
Feeble-minded and Crippled .....	1	—	—	—	1
Blind and Epilepsy .....	—	—	—	1	1
T.B. and Heart .....	—	—	—	—	—
Total	3	—	—	8	11

### TABLE IV.

Return of Defects Treated during the Year ended 31st December, 1942.

#### TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Table VI).

DISEASE OR DEFECT	Number of Defects referred for Treatment	Number of Defects treated or under treatment, during the year.		
		Under the Authority's Scheme	Otherwise	Total
SKIN—Ringworm, Scalp—				
(i) X-Ray Treatment...	...	—	—	—
(ii) Others ...	...	7	6	6
Ringworm, Body ...	...	4	4	4
Scabies ...	...	532	514	532
Impetigo ...	...	1410	1397	1410
Other skin disease	...	255	252	254
MINOR EYE DEFECTS—				
(External and other, but excluding cases falling in Group II) ...	...	186	166	182
MINOR EAR DEFECTS	...	268	239	261
MISCELLANEOUS—				
(e.g., minor injuries, bruises, sores, chilblains, etc.) ...	...	990	972	986
Total	...	3643	3550	3626

**Group II.—Defective Vision and Squint** (excluding Minor Eye Defects treated as Minor Ailments—Group I).

DEFECT OR DISEASE	Number of Defects referred for Treatment	No. OF DEFECTS DEALT WITH.		
		Under the Authority's Scheme.	Submitted to refraction by private practitioner or at Hospital, apart from the Authority's Scheme.	Otherwise
Errors of Refraction (including Squint) ... ... ...	668	477	41	20
Other Defect or Disease of the Eyes (excluding those recorded in Group I) ... ... ...	—	—	—	—
Total ... ...	668	477	41	20
				538

Total number of children for whom spectacles were prescribed—

(a) Under the Authority's Scheme ... ... ... ... ... 381  
 (b) Otherwise ... ... ... ... ... 33

Total number of children who obtained or received spectacles—

(a) Under the Authority's Scheme ... ... ... ... ... 381  
 (b) Otherwise ... ... ... ... ... 19

**Group III.—Treatment of Defects of Nose and Throat.**

Referred for treatment	Number of Defects.											
	Received Operative Treatment.				Total				Received other forms of treatment.		Total number treated	
	Under the Authority's Scheme in Clinic or Hospital		By Private Practitioner or Hospital apart from the Authority's Scheme									
717	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)
717	—	4	283	23	20	—	28	6	20	4	311	29
	(i) Tonsils only.	(ii) Adenoids only.	(iii) Tonsils and adenoids.	(iv) Other defects of the nose and throat.								

(i) Tonsils only. (iii) Tonsils and adenoids.  
 (ii) Adenoids only. (iv) Other defects of the nose and throat.

**Group IV.—Orthopaedic and Postural Defects.**

Number of children treated.						Total number treated
Under the Authority's Scheme			Otherwise			
Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	
13	6	400	—	—	7	426

**TABLE V.**  
Dental Inspection and Treatment.

(1) Number of Children who were :—		(2) Half-days devoted to :—		
(a) Inspected by the Dentist :—		Inspection .....	156	
Aged :	3— 203	Treatment .....	831	
	4—1063	Total	987	
	5—1687			
	6—1656			
	7—1656			
	8—1534			
Routine	9—1658			
Age	10—1684	Total	16116	
Groups	11—1575			
	12—1556			
	13—1537			
	14— 274			
	15— 27			
	16— 6			
Specials	112			
Grand Total .....		16228		
(b) Found to require treatment .....		8019		
(c) Actually treated .....		3684		
(3) Attendances made by children for treatment .....			6586	
(4) Fillings :—				
Permanent teeth 1945				
Temporary teeth 5		Total	1950	
(5) Extractions :—				
Permanent teeth 1702				
Temporary teeth 6161		Total	7863	
(6) Administrations of general anaesthetics for extractions			1466	
(7) Other Operations :—				
Permanent teeth 392				
Temporary teeth 23		Total	415	

*Note :—*In addition to the above inspections, 7603 children were re-inspected during the year.

**TABLE VI.**  
Uncleanliness and Verminous Conditions.

(i.)	Average number of visits per school made during the year by the School Nurses	57
(ii.)	Total number of examinations of children in the Schools by School Nurses	57840
(iii.)	Number of individual children found unclean	3037
(iv.)	Number of children cleansed under arrangements made by the Local Education Authority	
	(a) Compulsorily	—
	(b) Voluntarily	8
(v.)	Number of children cleansed under provisions of the Scabies Order 1941	7
(vi.)	Number of cases in which legal proceedings were taken :	
	(a) Under the Education Act, 1921	—
	(b) Under School Attendance Byelaws	—

**TABLE VII.**  
Summary of Treatment of Defects.

DISEASE OR DEFECT	REFERRED FOR TREATMENT	NUMBER OF DEFECTS		
		UNDER LOCAL EDUCATION AUTHORITY'S SCHEME	TREATED OTHERWISE	TOTAL
Minor Ailments ... ... ... ...	3643	3550	76	3626
Visual Defects ... ... ... ...	668	477	61	538
Defects of Throat and Nose ... ... ...	717	419	86	505
Dental Defects	{ Referred by Dentist 8019	3648	184	3832
	{ " by School M.O. 60	36	13	49
Other Defects ... ... ... ...	859	743	66	809
<b>Total</b> ... ...	<b>13966</b>	<b>8873</b>	<b>486</b>	<b>9359</b>

## SECONDARY SCHOOLS—Tables VIII to XIV.

TABLE VIII.

## RETURN OF MEDICAL INSPECTIONS.

## A—ROUTINE MEDICAL INSPECTIONS.

## Number of Inspections—

Age	4	—	1	Age	12	—	145
	5	—	6		13	—	204
	6	—	26		14	—	204
	7	—	23		15	—	169
	8	—	41		16	—	63
	9	—	47		17	—	17
	10	—	54		18	—	3
	11	—	112		19	—	—
							—
				Total	...		1115
							—

## B.—OTHER INSPECTIONS.

Number of Special Inspections	...	...	...	...	...	...	...	139
Number of Re-inspections	...	...	...	...	...	...	...	271
								—
							Total	410
								—

## C.—CHILDREN FOUND TO REQUIRE TREATMENT.

Number of *individual children* found at *Routine* Medical Inspection to Require Treatment (excluding Defects of Nutrition, Uncleanliness and Dental Diseases).

Group. (1)	For defective vision (excluding squint). (2)	For all other conditions recorded in Table IX A. (3)	Total. (4)
All Ages	41	9	50

TABLE IX.

Classification of the Nutrition of Children inspected during the year.

Number of Children Inspected	A. (Excellent)		B. (Normal)		C. (Slightly Sub-normal)		D. (Bad)	
	No.	%	No.	%	No.	%	No.	%
1115	268	24.04	843	75.60	4	0.36	—	—

## TABLE X.

Return of all Exceptional Children in the area on the 31st December, 1942.

(NOTE :—The definitions for the purposes of this Table are the same as those shown in Table III of the statistics for Elementary Schools).

### BLIND CHILDREN.

### PARTIALLY SIGHTED CHILDREN.

### DEAF CHILDREN.

### PARTIALLY DEAF CHILDREN.

### MENTALLY DEFECTIVE CHILDREN.

### EPILEPTIC CHILDREN.

### PHYSICALLY DEFECTIVE CHILDREN.

#### A.—TUBERCULOUS CHILDREN.

##### I.—Children Suffering from Pulmonary Tuberculosis.

##### II.—Children Suffering from Non-Pulmonary Tuberculosis.

1

#### B. DELICATE CHILDREN.

At Certified Special Schools	At Secondary Schools	At other Institutions	At no School or Institution	Total
—	4	—	—	4

#### C. CRIPPLED CHILDREN.

#### D. CHILDREN WITH HEART DISEASE.

1

### CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

TABLE XI.

Return of Defects Treated during the Year ended 31st December, 1942.

## TREATMENT TABLE.

**Group I.—Minor Ailments** (excluding Uncleanliness, for which see Table XIII).

DISEASE OR DEFECT (1)	Number of Defects referred for Treatment (2)	Number of Defects treated, or under treatment, during the year.		
		Under the Authority's Scheme (3)	Otherwise (4)	Total (5)
SKIN—Ringworm, Scalp—				
(i) X-Ray Treatment	...	...	—	—
(ii) Others	...	...	—	—
Ringworm, Body	...	...	1	1
Scabies	...	...	—	—
Impetigo	...	...	2	2
Other Skin Disease	...	...	—	—
MINOR EYE DEFECTS— (External and other, but excluding cases falling in Group II)	...	...	—	—
MINOR EAR DEFECTS	...	...	3	3
MISCELLANEOUS— (e.g., minor injuries, bruises, sores, chil- blains, etc.)	...	...	1	—
Total	...	7	5	6

**Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).**

DEFECT OR DISEASE (1)	Number of Defects referred for Treatment (2)	No. OF DEFECTS DEALT WITH.				Total (6)
		Under the Authority's Scheme. (3)	Submitted to refraction by private practitioner or at Hospital apart from the Authority's Scheme. (4)	Otherwise (5)		
Errors of Refraction (including Squint) .....	66	33	18	—	51	
Other Defect or Disease of the Eyes (excluding those recorded in Group I) ...	—	—	—	—	—	—
Total	66	33	18	—	51	

Total number of children for whom spectacles were prescribed:

number of children for whom spectacles were prescribed:  
 (a) Under the Authority's Scheme ... ... ... ... ... ... ... ... 26  
 (b) Otherwise ... ... ... ... ... ... ... ... 11

(b) Otherwise ... ... ... ... ... ... ... Total number of children who obtained or received spectacles:

number of children who obtained or received spectacles :  
 (a) Under the Authority's Scheme ... ... ... ... ... ... ... ... 26  
 (b) Otherwise ... ... ... ... ... ... ... ... 11

**Group III.—Treatment of Defects of Nose and Throat.**

Referred for treatment	Number of Defects.												Total number treated	
	Received Operative Treatment													
	Under the Authority's Scheme, in Clinic or Hospital				By Private Practitioner or Hospital, apart from the Authority's Scheme				Total					
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	—	7	
10	—	—	4	—	—	3	—	—	—	3	4	—		

- (i) Tonsils only.
- (ii) Adenoids only.
- (iii) Tonsils and adenoids.
- (iv) Other defects of the nose and throat.

**Group IV.—Orthopaedic and Postural Defects.**

Number of Children Treated.						Total	
Under the Authority's Scheme			Otherwise				
Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic		
—	1	5	—	—	1	7	

**TABLE XII.**  
**Dental Inspection and Treatment.**

(1) Number of children who were :—		
(a) Inspected by the Dentist : Aged :		
Routine	4	13
Age Groups	5	14
	6	15
	7	91
	8	25
	9	17
	10	44
	11	18
	12	7
Specials	142	—
	147	—
	190	—
	1236	—
Grand Total	...	...
	28	213
	...	179
	...	155
	...	91
	...	28
	...	7
	...	—
	...	217
	...	219
	...	225
	...	37
	...	75

(2) Half-days devoted to :—		
Treatment	...	50
Inspection		
Total		
...	14	64
(3) Attendances made by Children for treatment		
...		
(4) Fillings :—		
Permanent Teeth	217	
Temporary Teeth	2	219
Total		
(5) Extractions :—		
Permanent Teeth	141	
Temporary Teeth	84	225
Total		
(6) Administrations of general anæsthetics for extractions		
...		37
(7) Other Operations :—		
Permanent Teeth	75	
Temporary teeth	—	75
Total		

NOTE.—In addition to the above inspections, 1044 children were re-inspected during the year, and of those, 310 were found to require treatment.

**TABLE XIII.**  
**Uncleanliness and Verminous Conditions.**

(i.) Average number of visits per school made during the year by the School Nurses	...   ...   ...   ...   ...   ...   ...   ...	33
(ii.) Total number of examinations of children in the Schools by School Nurses	...   ...   ...   ...   ...   ...   ...   ...	1213
(iii.) Number of individual children found unclean...	...   ...   ...   ...	14
(iv.) Number of children cleansed under arrangements made by the Local Education Authority		
(a) Compulsorily ...	...   ...   ...   ...	—
(b) Voluntarily ...	...   ...   ...   ...	—
(v.) Number of children cleansed under provisions of the Scabies Order 1931		
(vi.) Number of cases in which legal proceedings were taken :		
(a) Under the Education Act, 1921...	...   ...	—
(b) Under School Attendance Byelaws	...   ...	—

**TABLE XIV.**  
**Summary of Treatment of Defects.**

DISEASE OR DEFECT	NUMBER OF DEFECTS			
	REFERRED FOR TREATMENT	TREATED		
		Under local Education Authority's Scheme	Otherwise	Total
Minor Ailments	...	7	5	6
Visual Defects	...	66	33	18
Defects of Throat and Nose	...	10	4	3
Dental } Referred by Dentist	...	511	209	246
Defects } Referred by School M.O....	...	13	2	1
Other Defects	...	4	4	—
<b>Total</b>	<b>...</b>	<b>611</b>	<b>257</b>	<b>269</b>
				526

### APPENDIX

#### **Report by the Medical Officer of Health on proposals to examine school children by Miniature Radiography.**

*(Submitted to the Central Children's Care Committee on Friday, 26th February, 1943).*

In view of the suggestions recently made as to the desirability of introducing miniature radiography into the system of school medical inspection in St. Helens, I have been making enquiries into the possibilities and advisability of such a scheme. I have had the advantage of discussing the question with other School Medical Officers and also with one of the Medical Inspectors of the Board of Education, and would now place before the Committee a summary of the position as it appears to me. For purpose of explanation and discussion it will be convenient to present the report under the following headings :—

1. What is proposed and why.
2. Method of procedure.
3. A scheme outlined.
4. Interpretation of findings.
5. Post-school benefits.
6. Summary.

## 1. What is proposed and why.

Stated shortly, it is suggested that if all school children were examined by miniature radiography shortly before leaving school, there is a possibility that unsuspected lung or heart disease would be discovered, thus enabling the child in whom such discovery is made to receive any necessary treatment at an earlier period than would otherwise occur. If treatment were not necessary, it is suggested that the child could be kept under some form of supervision to prevent him or her entering an unsuitable occupation, or remain under general supervision as long as necessary.

To carry out such a programme, it is suggested that all school children of the 12-13 year old age group should have—by the special apparatus required—a miniature X-ray film made of the chest. That film would then be examined by an expert, who would decide from it whether or not there was evidence suggesting the need for further investigation. Further investigation would be carried out by clinical examination plus large scale X-ray if necessary.

## 2. Method of Procedure.

As is obvious this examination cannot be carried out at school. The children would have to attend some centre where the X-ray apparatus is installed, and those requiring further examination would have to attend the T.B. Dispensary or some other special clinic for the further investigation required. The stages in procedure would be :—

(a) The taking of the miniature X-ray film of all the children of the age group selected. There is only one apparatus in St. Helens at present capable of doing miniature radiography. That is the apparatus in the Surgery at the works of Messrs. Pilkington Bros., Ltd. During the last 2 years this apparatus has been used in the examination by this method of about 2,000 of Messrs. Pilkington Bros. employees. I am advised by Dr. Griffel, our Tuberculosis Officer, that at a cost of approximately £400 the apparatus at the T.B. Dispensary could also be adapted for this purpose. In the recent report of the Committee on Tuberculosis appointed by the Medical Research Council at the request of the Ministry of Health, however, certain very definite standards are laid down, to which all apparatus to be used for mass radiography should comply. Unfortunately, the apparatus at Messrs. Pilkington Bros. does not comply in all respects with these standards ; neither would the apparatus at the T.B. Dispensary, even after adaptation as suggested by Dr. Griffel. That brings us to an immediate difficulty, which is at present being investigated. The difficulty is that if the scheme is submitted to the Board of Education for their approval, they may not be prepared to approve a scheme which contemplates the use of apparatus not complying with the standards laid down by the Committee referred to.

In this connection I would draw the Committee's attention to two quotations from recent official publications. The first is from the report of the special Committee referred to, which says "The Technical Sub-Committee wishes to "emphasise that mass miniature radiography should not be lightly undertaken. "A very high standard of quality of miniature radiography is necessary for correct "interpretation, and the latter requires the highest radiological skill. The "making-up of compromise apparatus cannot be too strongly condemned and "would bring the method into disrepute." The second quotation is from a recent Ministry of Health Circular (No. 2741) and is that "The Minister considers it "very desirable that in a highly technical question such as miniature radiography, "the arrangements made should be of a standardised character, and that medical "examination by this method should be carried out only with equipment of assured perfection."

The standards laid down by the Committee on Tuberculosis refer, however, to apparatus to be used for "mass radiography," i.e., taking miniature X-ray photographs of large numbers of persons in a short time. Any scheme adopted in St. Helens would deal with much fewer numbers, and it is suggested that the time factor, which is an important point in the "standard" set, would not apply.

The Board will also take into consideration the qualifications for this work of the medical personnel carrying it out. As the Committee are aware, certain approved types of apparatus are being distributed by the Ministry of Health to certain selected Counties and County Boroughs. For the operation of these sets, arrangements are being made by the Ministry of Health for training of the necessary staffs. What training is to be given I am not at present in a position to say. Personally, however, I would have every confidence in Dr. Morris Jones to take the films and in Dr. Griffel to read them. Dr. Morris Jones, as Medical Officer to Messrs. Pilkington Bros., has had a long and extensive experience in taking X-ray films, and Dr. Griffel has been working on diagnostic radiology, both on the Continent and in this Country for the past 9-10 years, and on miniature radiography since 1939.

(b) Reading of the miniature films. This undoubtedly is of the greatest importance. It should be carried out only by an expert with special experience in chest work. He will examine each miniature film individually and pick out those that require further investigation.

(c) Further investigation. For the further investigation, the child should be referred to specialists in accordance with the investigation required, e.g., suspected Tuberculosis to the T.B. Officer, suspected Cardiac conditions to a Heart Specialist. The Specialist, by clinical and other examination or investigation accompanied, if considered desirable, by a full size X-ray examination, will finally decide the condition and advise as to any necessary treatment or supervision.

### 3. A Scheme Outlined.

In adopting such a scheme in St. Helens, it is suggested that the 12-13 year old age group be examined by this method, in addition to their usual medical examination at that age. It might also be extended to the older age groups of Secondary School children, though in this connection I am advised that the Special Committee on Tuberculosis are at present preparing a Report on the application of Miniature Radiography to Secondary School children. It might also be extended in time to scholars attending the Technical School.

For the actual taking of the miniature films there are two possibilities : (a) making arrangements with Messrs. Pilkington Bros. for the work to be done by Dr. Morris Jones at the Works Surgery, and (b) adapting the present X-ray apparatus at the T.B. Dispensary at a cost of approximately £400 and employing Dr. Morris Jones on a sessional basis to take the films. Additional staff (suggested at present as the equivalent of one whole time clerk) would also have to be appointed at the T.B. Dispensary for e.g., keeping of records, marshalling of scholars, developing of films, etc.

The number of school children to be examined in St. Helens in the age group suggested is approximately 1,600. As the average number of children X-rayed would be 60 per 2 hour session this would mean 25 to 30 sessions by Dr. Morris Jones.

The reading of the miniature films should, I suggest, be carried out by Dr. Griffel, and would mean the devotion of approximately 1 session of 1 hour per week for this purpose. From his reading Dr. Griffel would decide which cases required further investigation.

Further investigation under the scheme is, of course, primarily to discover whether the child is actually suffering from Tuberculosis of the Lungs, or whether the abnormalities shown by the miniature X-ray are of any clinical significance from the point of view of Tuberculosis. Such cases should obviously be investigated by Dr. Griffel, and could be absorbed into the ordinary routine work of the Tuberculosis Dispensary. Other lung conditions would also be dealt with by Dr. Griffel.

It has been suggested, however, that this method of X-ray examination will show, in certain cases, abnormalities of the heart. For the further investigation of these, it appears to me essential that a heart specialist should be employed. Only a suitably qualified heart specialist is, in my opinion, competent to say definitely whether the abnormality, or suggested abnormality found in the X-ray film is of any clinical significance, and to advise regarding treatment and supervision where necessary.

The necessity for the engagement of a heart specialist for the further investigation of these cases, immediately suggests the desirability of establishing in St. Helens a "Heart Clinic," to which would be referred, not only suspected cases discovered through miniature radiography, but to which would be sent every case of known or suspected heart disease, and also cases of rheumatism. There is no doubt that such a clinic would be a most useful and beneficial addition to the School Medical Service. It is estimated that there are in St. Helens at present approximately 300 "heart" cases amongst children of school age. As a commencement it is suggested that one session per fortnight might be desirable to review all the present known cases and deal with new cases, but that one session per month might be sufficient later. I would suggest, therefore, that, apart from the adoption or otherwise of a scheme for miniature radiography, application be made now to the Board of Education for their approval to the establishment of a Heart Clinic.

#### 4. Interpretation of Findings.

I have no knowledge at present of any records of any scheme of miniature radiography of school children. The nearest I can get are the results obtained recently by the examination of 2,000 employees of Messrs. Pilkington Bros. Amongst these employees were 476 aged 14-15 years. Of these, Drs. Jones and Griffel reported, as the result of viewing the miniature films, the following abnormalities or suspected abnormalities :—

Chest abnormalities or deformities	2	0.4%
Non-T.B. Pulmonary conditions	6	1.3%
Non-Pulmonary T.B. conditions	1	0.2%
Old Apical lesions and Pleurisy	11	2.3%
More extensive tubercular disease	2	0.4%
Cardio-vascular changes	33	6.9%
	—	—
Total	55	11.5%
	—	—

Not all of these cases have, however, been fully investigated. It is impossible, therefore, to state in what proportion of them the findings of the miniature radiography are of any clinical significance. An attempt has been made to assess the clinical significance by comparing the findings of the miniature radiography with (a) school medical findings, (b) reports of the examination by the Factory Surgeon, and (c) reports of the routine medical examination by Messrs Pilkington Brothers Medical Officer. The results of such comparison cannot, however, be considered altogether satisfactory. Whilst 4 out of the 6 cases classed

as "Non-T.B. pulmonary conditions" had been noted in the School Medical findings as suffering from chest affection—mainly bronchitis—only 2 out of the 11 classed as "old apical lesions" have had any chest condition noted during their school life, and in only 9 out of the 33 classed as "cardio-vascular changes" do any of the Medical Officers mention any abnormality of the heart or circulatory system. The "Non-pulmonary T.B. condition" was already known as a notified T.B. case, and one of the 2 cases classed as "more extensive disease" had, during school life, spent periods at both the Open Air School and Eccleston Hall Sanatorium, where he had been diagnosed as Non-T.B. To obtain a true estimate of the value of the X-ray findings, further investigation should follow the miniature X-ray. There is also the point that no information is available as to the results of the clinical examination of cases whose X-ray has been passed as showing no abnormality.

For an assessment of the value of miniature radiography as applied to school children, therefore, consideration has to be given to "probabilities." In this connection I would remind the Committee that all recent developments of schemes for miniature radiography aim at providing a means of quick and early recognition of Tuberculosis. What is the likelihood of the occurrence of pulmonary tuberculosis in the age group 12-13 years? Medical opinion at present is in general agreement that this age group is low in the scale of susceptibility and all medical statistics go to show that school ages are amongst the lowest in providing cases of active pulmonary disease. Old Apical lesions may be found by X-ray, but it is at present an open question whether these are of any clinical significance.

In regard to cases classed as "cardio-vascular changes" greater difficulty arises in assessing the value of miniature radiography. Until a substantial number of those reported as showing on the X-ray film "cardio-vascular changes" have been thoroughly investigated clinically and have been followed up into later years of life, it is impossible to assess the true value of the X-ray findings. It has also to be remembered that not all clinically damaged hearts show an X-ray abnormality.

## 5. Post-School Benefits.

To me, as Medical Officer of Health, one of the most important questions which would arise from the adoption of a scheme for the miniature radiography of school children is the value of the findings as applied to the post-school life of the children. Taking the age group to be examined as the 12-13 year group, there is left only approximately 1 year at present for the supervision of the child under the School Medical Service. Should an earlier age be selected? It is very doubtful if there would be any material advantage.

What then is going to happen to these children after they leave school. Actual cases of Tuberculosis will, of course, remain on the books of the T.B. Dispensary and will thus be kept under supervision. To a lesser extent old healed cases and heart cases can also be supervised. But without a proper link up with Industry it is difficult to see how the majority of those found defective can be prevented from taking up employment which may be harmful to them. The records of both the Tuberculosis Service and the School Medical Service are confidential. Can they be used by the Juvenile Employment Bureau or be passed to the Factory Surgeon for his information when he examines a young person entering industry? I am very doubtful. Until there is a definite link up of the child's school medical history with his or her employment in the post-school years, and some more definite form of medical treatment and supervision than exists at present during these years, much of the benefit of the discoveries of the miniature radiography will be lost.

It has also to be remembered that, especially in relation to Tuberculosis, there is a danger that a negative finding in the course of miniature radiography at age 12-13 years—an age not specially susceptible to Tuberculosis—might lead to the development of a false sense of security during later years when the risk is much greater.

## 6. Summary.

In the preceding paragraphs I have endeavoured to assess the value of examining school children by miniature radiography prior to their leaving school and taking up employment. That miniature radiography can and will prove of the greatest value in the early diagnosis of Tuberculosis no one for a moment doubts. But would a sufficient number of cases be found in the 12-13 age group to justify the examination by this method of all children of that age? In my opinion the likelihood is small. Furthermore, under present arrangements, every case of doubtful or suspected chest disease discovered during school medical inspection is referred to the Tuberculosis Officer for investigation, and every school child contact of a notified case of Tuberculosis is kept under the continuous supervision of the School Medical Department.

That leaves, therefore, the question of the value of the reports regarding other defects, of which the most important are "old apical lesions" and "cardio-vascular changes." In the case of "old apical lesions" found, immediate treatment is seldom indicated, and the benefit to be derived must, in my opinion, depend on the ability to follow the case into later years. It is possible that some good would result from so doing. By constant supervision such a case might be prevented from taking up unsuitable employment, and should the old lesion at any time break down, appropriate steps could be taken to prevent, as far as possible, a serious extension of the disease. I have no knowledge of any organised scheme on these lines. It opens up the possibilities of doing some good work, but its success or otherwise would depend on close co-operation, not only with the patient, but also with industry.

In regard to "cardio-vascular changes," it would appear from Dr. Griffel's report on his findings at Messrs. Pilkington Bros. that it is not uncommon to find in miniature X-ray films abnormalities in the heart and great blood vessels. No evidence has been produced, however, that such findings are all of clinical significance. Medical Officers examining, quite independently from the Miniature X-ray examination, only noted lesions of the heart or circulatory system in 9 out of the 33 cases classified by Dr. Griffel as abnormal. Here again, therefore, there may be a field for further investigation, though personally I must confess I am doubtful about the value of setting up a scheme for miniature radiography with discovery of heart diseases as one of its main objects. In my opinion far more good would be accomplished by the establishment of a "Heart Clinic," at which all cases of suspected heart conditions could be thoroughly investigated, and to which also cases of Rheumatism—that too frequent cause of heart disease in children—could be sent for supervision of the heart condition.

There is one aspect regarding the desirability of establishing a scheme of miniature radiography upon which I have not touched. That is, that whilst some Authorities will, shortly, with the assistance of the Ministry of Health, be able to introduce miniature radiography in their area, St. Helens will not have such facilities. The intention of the Ministry of Health Scheme is that in the areas concerned, mass miniature radiography be carried out amongst those specially susceptible to Tuberculosis, either on account of age or sex or the nature of the employment. It is also agreed that, especially in large factories, the initial

examination of all employees by this method would be a considerable benefit in preventing the spread of infection. If, therefore, a scheme for miniature radiography for school children were introduced into St. Helens, it could with advantage be developed into a larger scheme to include, e.g., Nurses, Corporation employees and/or other selected groups of the population. It is expected, however, that any such development would have to comply with standards laid down by the Ministry of Health, both as regards type of equipment and method of operation of the Scheme.

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